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ABSTRACT

This document introduces the national initiative YouthALIVE (Youth Achievement through Learning, Involvement, Volunteering, and Employment). The YouthALIVE program focuses on the needs of children of color from low-income communities and provides financial and technical assistance to science centers, zoos, botanical gardens, and museums for the development and implementation of programs for youth ages 10-17. Chapters include: (1) "Introducing YouthALIVE"; (2) "Making a Difference"; (3) "Defining the Challenge"; (4) "Shifting the Paradigm"; (5) "Building the Foundation"; (6) "Looking Back: Lesson Learned"; and (7) "Looking Forward: Next Steps." (YDS)

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YouthALIVE!

From Enrichment to Employment: The YouthALIVE! Experience

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DeAnna Banks Beane

JANUARY 2001
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YouthALIVE!
From Enrichment to Employment: The YouthALIVE! Experience

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The Association of Science-Technology Centers Incorporated (ASTC) is a nonprofit, international organization of science centers and museums dedicated to furthering public understanding of science. The 550-plus members of ASTC include science-technology centers and museums, zoos, aquariums, botanical gardens, and natural history and children's museums. ASTC's charge is to increase the capacity of these institutions to be rich resources for science learning for all people. Through its conferences, programs, publications, and services, ASTC works with members to share information, provide professional development and advocacy services, and to enhance the exhibits and educational programs of the field.

Every day, people from all backgrounds around the world become hands-on explorers in science centers. There they wonder, manipulate, and experiment with old and new notions about science and technology.

With a goal to make science accessible to everyone, the Association of Science-Technology Centers Incorporated (ASTC) continually strives to find new ways to put scientific phenomena within the grasp of every visitor. One of our most innovative achievements, so far, has been a national initiative called *Youth*ALIVE!, (Youth Achievement through Learning, Involvement, Volunteering, and Employment). *Youth*ALIVE! has helped science centers and museums develop and implement youth programs that validate and develop the potential of youth, ages 10-17, especially those from underserved communities.

The *Youth*ALIVE! initiative has been an innovative success in this area, as well as in ways that we had not anticipated. It has grown into a philosophy that affects the entire science-center and museum field—for many museum professionals, the term "*Youth*ALIVE!" conjures a certain set of images, activities, values, and attitudes.

It has positioned science centers and museums to serve as collaborators in the educational and social development of local youth in communities across the United States. It has focused the field's attention on the importance of intensifying the pursuit of equity and diversity.

In this report, we share some of the lessons, stories, and experiences of the *Youth*ALIVE! initiative. It is our conviction that the important work accomplished in this initiative needs to continue and grow.

Bonnie VanDorn
Executive Director, ASTC

*"Through... Youth**ALIVE!**... teenagers receive intensive mentoring to develop their science, conflict resolution, and employment skills. ...It makes you wonder what else we could do if we worked together for a better future for our kids."*

Carl Sagan
The Demon Haunted World
Science as a Candle in the Dark 1997

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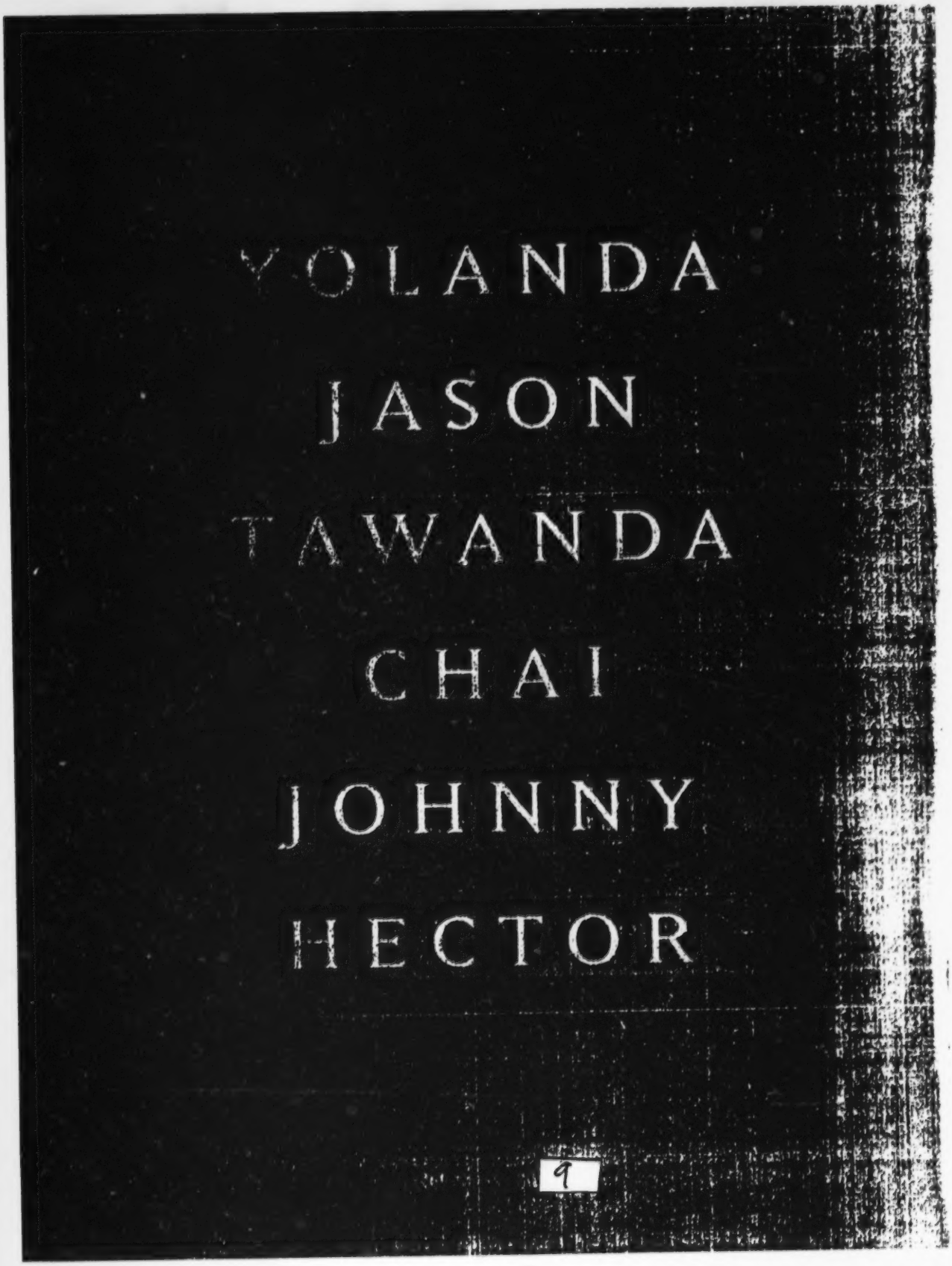

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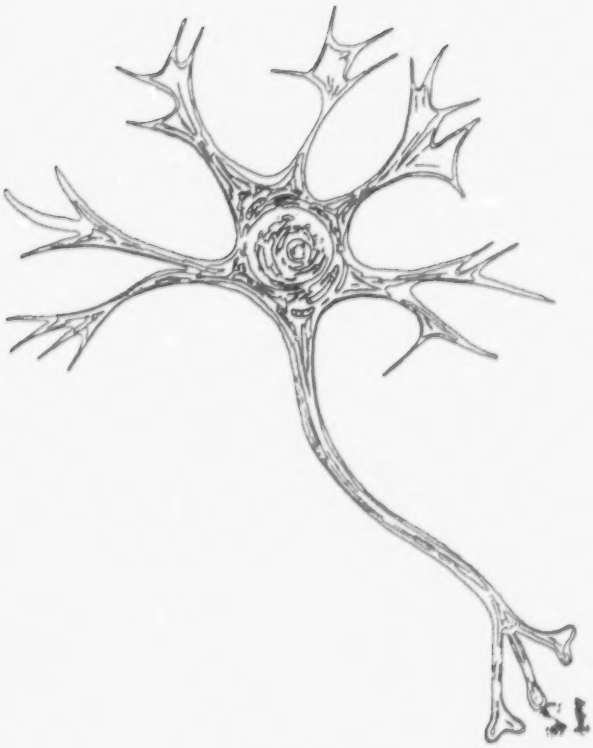
This publication began with the realization that it was essential to share youth program participants' experiences from their own perspectives. Very simply, only the young people themselves could convey the true impact that the museum staff and programs have had on their lives. In response to an appeal for reflective essays, ASTC staff received dozens of riveting accounts from teens across the country. It became clear that including every single essay would produce a dauntingly dense publication. Therefore, six essays that captured the essence of the initiative from the youth perspective were edited and are interspersed throughout this report. The rest of this publication provides a context for these stories.



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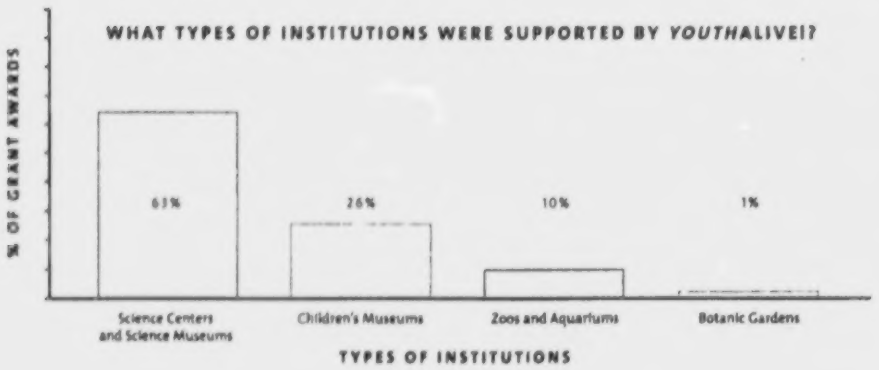
Introducing *Youth*ALIVE!

In 1991, with support from the Wallace-Reader's Digest Funds (the Funds), ASTC launched a nationwide initiative to bring opportunities for education and personal growth to young people, specifically focusing on the needs of children of color and those from low-income communities. The *Youth*ALIVE! initiative provided financial and technical assistance to science centers, natural history museums, technology centers, children's museums, aquariums, botanical gardens, and zoos in developing, implementing, and sustaining dynamic programs for and with over 7,000 young people, ages 10 to 17.

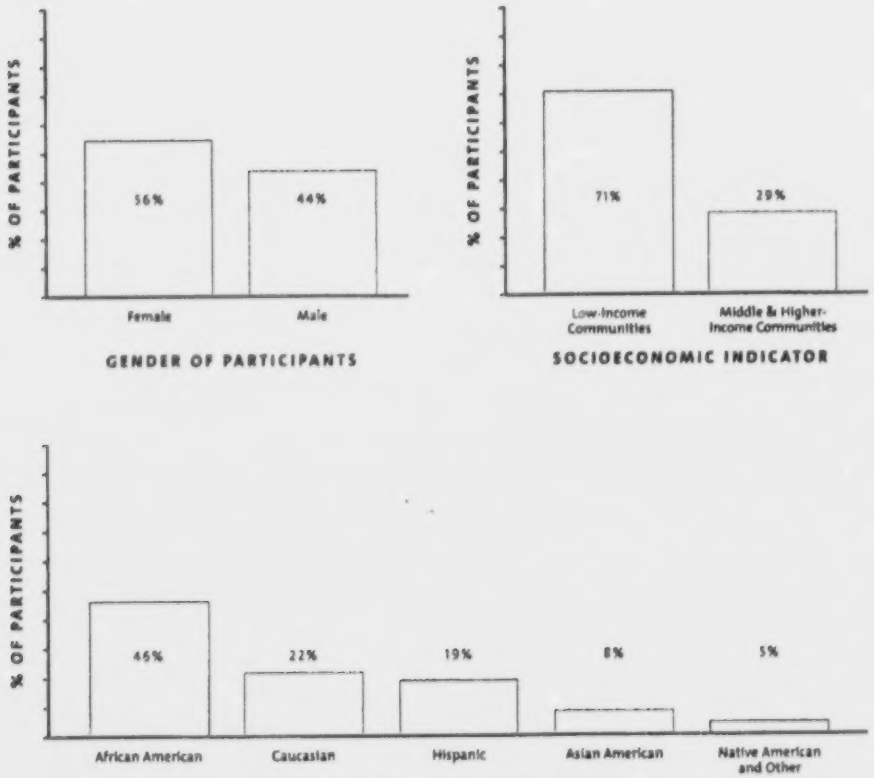


Although funding for the national initiative has ended, five regional networks continue the groundbreaking work of equipping science center and museum professionals with the expertise to:

- Recruit young people who are diverse in age, background, and ethnicity, and help them develop their leadership skills;
- Enlist fellow staff members as mentors for youth;
- Act as advocates for their programs and young people; and
- Keep the issue of diversifying the field at the forefront of all their work.

We learned and achieved many things through the *Youth*ALIVE! initiative, and this publication outlines our most important findings. As ASTC plans its next steps in the areas of education, youth development, and diversity, the structures and programs created through the *Youth*ALIVE! initiative will provide a significant foundation upon which we can build.

WHO WERE *YOUTH*ALIVE! PARTICIPANTS? (1999)



A Pipeline of Opportunities

Through the California Science Center's youth programs, underserved youth build their science, interpersonal, and employment skills through a pipeline of experiences. As *Shoebox Scientists*, the youngest children explore basic science and math concepts; the *Curator Kids* use exhibits in the science center to explore themes that are relevant to their academic and personal lives; and the *Sixty-Minute Scientists* provide hands-on science activities for science center guests and community groups. Through *Learn-to-Earn*, the oldest and more experienced teens work as teaching assistants and demonstrators/workshop leaders in programs for younger teens.

Yolanda was a member of *Learn-to-Earn* from 1995 to 1998.

"I have strengthened my desire to help children..."

march/99

"I am a 20-year-old African American, the first in my family who plans on graduating from college.

YOL

In 1995, I was a Learn-to-Earn Junior Curator at the California Science Center. After training to teach science, I did 'Your Insides Out,' teaching about the heart, lungs, and circulatory system. Teaching kids about their health and bodies inspired me. I felt confident in demonstrating how the heart works. I was helping kids that grew up like me. I could relate to them and offer them the help that I would have liked to have had.

By 1997, I supervised the Learn-to-Earn interns, some of whom had started out at age 10 as Curator Kids. I felt good about being promoted to supervisor. I liked giving advice to help them do a job that I loved to do. The next year, I managed the Curator Kids' lunch program. It was my responsibility to see that each student had a nutritious meal. I learned to document my preparation and planning, to explain our needs to our partners, and to justify the lunch program.

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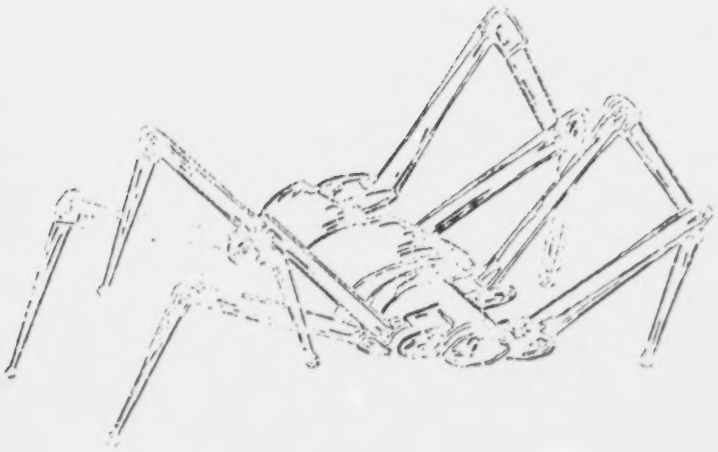
in her own words

ANDA

The Learn-to-Earn program has helped me develop the patience and the skills to work with different people. The experience enhanced my public speaking skills and confidence in working with the public. I have strengthened my desire to help inner-city children who come from single-parent homes and have difficulty accomplishing small tasks. Some day, I would like to create my own inner-city youth program similar to the Curator Kids Club and Learn-to-Earn programs. These programs mean a lot to the families in Avalon Gardens housing development."

Yolanda was employed at the Los Angeles City Court House and was majoring in Child Development at California State University—Long Beach.



Making a Difference

We know that what makes *Youth*ALIVE! so innovative is not just its focus on youth development, academic enrichment in science, pre-employment training and mentoring—or even the fact that underserved youth now have a safe place to go during their out-of-school hours. Rather, it is that *all* of these elements, so critical to becoming a productive member of modern society, are documented components of ongoing *Youth*ALIVE! programs in science centers and museums.

We also know that through their *Youth*ALIVE! programs, many institutions bridge the gap between their own vast resources and young people living in minority and low-income communities. Teenagers who have not excelled in science become guides for exhibits on complex scientific concepts. Teenagers who may have once been shy and withdrawn routinely engage visitors through scientific demonstrations. Teenagers who have too few positive, adult role models in their lives now have mentors who support them and introduce them to career options in the fields of science and technology. Teenagers who have never had access to a formal work environment now learn about and practice workplace skills.

Over the 10 years of the initiative, ASTC has received extensive feedback from various sources. The content of this report is primarily built on information culled from

- *Review of the Initiative's First Three Years,* Inverness Research Associates, 1995.
- Annual and final reports from grantee institutions, 1995 to 1999.
- *Learnings from the Youth*ALIVE! *Initiative from the Year 2 Evaluation,* 1998 (Phase II); and *Youth*ALIVE! *Initiative (Phase II): A Final Evaluation,* 2000, COSMOS Corporation.
- *Assessment of the Youth*ALIVE! *Workskills Development Program,* Gregg Jackson, 1998.
- *Creating Economic Opportunities for Every Young Person: Lessons from the Hitachi Foundation's Partnerships in Education and Economic Opportunity Initiative,* MDC Inc., 2000.
- *In Their Own Words: Teen Voices from Youth*ALIVE!, George Hein, Lynn Baum, and Marilyn Solvay, *Journal of Museum Education,* Fall 2000.
- Reflective essays from *Youth*ALIVE! teen participants and alumni, 1999.

Below are examples of how these documents have informed and validated our work.

REVIEW OF THE INITIATIVE'S FIRST THREE YEARS, EXECUTIVE SUMMARY

Inverness Research Associates

"Many youth themselves value their experiences. They often mention a new sense of excitement about their own learning. They value having work responsibilities that are an integral part of the museum's operations. They particularly value the connection they have with staff who are knowledgeable, caring, attentive and expect a lot from the youth." [PAGE 9]

ASSESSMENT OF THE YOUTHALIVE! WORKSKILLS DEVELOPMENT PROGRAM

Gregg B. Jackson, Professor, George Washington University

"Many of the teens seemed to have a sophisticated understanding of the crux of their apprenticeship jobs. One who works in a team instructing visiting groups of students noted that, 'When they come, most think science is stupid, but we get them interested.' Another with the same responsibility asserted, 'We really take hard concepts of science and break them down to everyday understanding.'" [PAGES 6-7]

"A hidden benefit of the *Youth*ALIVE! work skills programs may be preparation for parenting. Most of the teens work at least part of their time with young children and they have received specific training for that. The training seems to have changed their attitudes and behavior toward children. One explained that the program 'helps me with kids; we work with kids [who] have disabilities and [are] from different countries; now I know how to deal with them—you talk to them to calm them down'. A second observed, 'Sometimes when working on the floor, somebody leaves their positions and the kids climb all over the place and get hurt.' A third said, 'We learned to interact with kids; instead of slapping them, speak in a low voice.' When the teens were observed in their work with children, they unfailingly spoke in that low voice. During one program's hands-on science classes for a group of visiting 3- to 5-year-olds, the teens directed the children's attention, demonstrated how to do things, allowed the children to do things their own way, but assisted when needed for success." [PAGE 8]

LEARNINGS FROM THE YOUTHALIVE! INITIATIVE FROM THE YEAR 2 EVALUATION

COSMOS Corporation

"[A] youth at [a *Youth*ALIVE! site] said that his grades went up because he learned how to frame the question and how to learn. This theme was repeated throughout the focus groups—youth learned appropriate ways to interact, not only with their peers but with people of all ages, genders, and ethnicities. Skills such as speaking to strangers, listening, teaching and instructing others, learning how to change the intonation of their voice for different occasions, and demonstrating patience were acquired on an ongoing basis throughout the programs." [PAGE III-8]

"Apart from youth comments on museum ownership through responsibility, the sense of belonging to the museum also comes from an array of youths' references to having access throughout the museum and feeling like the museum is a home away from home, or from staff mentioning that turnover is difficult for youth who find in *Youth*ALIVE! staff the most reliable, dependable person in their lives." [PAGE III-12]

YOUTHALIVE! INITIATIVE (PHASE II): A FINAL EVALUATION

COSMOS Corporation

"The institutions reported a variety of benefits as a result of having *Youth*ALIVE! programs, including:

- Increasing cultural sensitivity and diversity among the staff;
- Making the institution more attractive to a wider variety of users, including youths—and through them, younger children;
- Increasing integration of the institution with the local community, through its community partnering; and
- Expanding the potential base of sponsors for fund-raising." [SECTION 6, PAGE 3]

CREATING ECONOMIC OPPORTUNITIES FOR EVERY YOUNG PERSON: LESSONS FROM THE HITACHI FOUNDATION'S PARTNERSHIPS IN EDUCATION AND ECONOMIC OPPORTUNITY INITIATIVE

MDC, Inc.[1]

"*Youth*ALIVE! has shown that science and technology centers can provide a powerful setting for career exploration and preparation experiences for all young people. Through a youth-friendly environment that provides underserved youth with access to resources usually unavailable to them, the program has demonstrated how museums and other institutions can supplement more traditional career development and exploration programs offered by schools and youth organizations." [PAGE 29]

IN THEIR OWN WORDS: TEEN VOICES FROM YOUTHALIVE!

Lynn Baum, George Hein, Marilyn Solvay[2]

"In reading their stories, six major themes emerged. *Youth*ALIVE! was intended to be an educational experience, and every story is rich in details about what these adolescents *learned* from and through their experience. But beyond specific or general lessons they gained, a theme of *life-changing* experiences emerges. Many of the participants were introduced to new, unimagined opportunities, to a new way of perceiving the world, to exciting opportunities that have transformed their perception of themselves and their place in the world. Much of what they learned and its ability to transform their lives is due to the *relationships* they formed with the Museum staff, who are described warmly as mentors and as new 'family.' Participation in *Youth*ALIVE! allowed the students to enjoy *opportunities* of our society that other students take for granted: museum attendance, trips to other parts of metropolitan areas or more distant cities and towns, and meeting new people. As a result of their activities, the *Youth*ALIVE! participants have made and are carrying out ambitious life plans. They are *putting their experiences to good use* as they progress towards active participation in society. Finally, there is considerable evidence that the *museum environment* provides a unique and rich venue for this program." [PAGE 9]

"One of the most striking aspects of these teens' stories is the range of the teens themselves. These young people have succeeded in their museums—not because they are all

accomplished students or come from similar homes or backgrounds, but because of the range of opportunities for learning, working, and creating relationships that seems to have enabled each of these students to find what they needed and to take the risks to move forward." [PAGE 13]

"There is a powerful partnership that exists between the teens and their museums. Museums are environments filled with people who are passionate about lifelong learning and teaching. A museum is a supportive and safe community for youth to take risks as they grow and learn. If it takes a village to raise a child, museums have most definitely moved into the neighborhood." [PAGE 14]

1. MDC, Inc. was engaged by the Hitachi Foundation to assemble the lessons learned through its Partnerships in Education and Economic Opportunity initiative. As a grantee, ASTC built on *Youth*ALIVE!'s success with work skills training for youth to develop *Youth*ALIVE! in the Workplace.

2. This team of researchers, already familiar with *Youth*ALIVE! and the museum education field, was asked to conduct an analytic review of 26 reflective essays, written by young people who had participated in *Youth*ALIVE! programs. The six essays appearing in this report were among the 26 analyzed by this team.

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"I got a lot of chances, chances I never had before."

JA

february/99

Mentors Make a Difference

The *Youth Mentorship Program* at the Henry Ford Museum & Greenfield Village is a long-term, intensive experience that helps young people develop life and work skills. The young people engage in positive, work-related experiences and learn firsthand about their career options and opportunities through mentoring experiences with museum or village staff in exhibits, conservation, photography, educational programs, visitor services, marketing, public relations, development, or the locomotive shop. Each semester, the young people choose and design a service project, contributing over 50 hours of service to their community.

Jason participated from 1994 to 1996.

"I have two older brothers. They always got into trouble—always fighting. Both were thrown out of junior high school. When I got to junior high, I had to uphold the reputation and be like them. I got in with the clique, did a lot of drinking and fighting, smoked weed, and was involved in gangs. By the second semester of eighth grade, people were afraid to look at us or talk to us. We were a threat. I didn't care about anybody or anything. I had a chip on my shoulder. I didn't do my work and had a very low grade-point average. I got expelled. For a few months, I worked two jobs—in construction and at night, in a bar. At the end of the summer, the principal asked me if I wanted to come back to school. He offered to send me to Tinkum.

Tinkum is an alternative school for kids who have problems, get in trouble, and can't adjust to normal school. There was a program with the Henry Ford Museum & Greenfield Village. A lady named Betsy came to the school. She told me I had to straighten my act out, show up for school every day, get good grades, show an honest effort, and she might consider me for the program. That made me think about what I was doing in life.

Betsy finally allowed me to enroll in the Youth Mentorship Program at the Museum. There I met Eric. He took care of all the cars and equipment. He wasn't sure about having a student, so I really had to prove myself. Finally he gave me the chance. I worked in the

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SON

in his own words

garage with Eric on small engines. I was able to learn—with my hands. Before, schoolwork drove me nuts. I'd read a paragraph and forget it by the time I got to the next one. I'm not stupid. It's just I can't do work like that. Working with my hands really gave me a chance to find my talent. I also learned how to weld with Frank. The first time I saw him weld I was in awe. I had to try it and he gave me a chance. I got a lot of chances, chances I never had before. I learned how to control myself. I learned how to deal with people. I learned how to pull myself back up when things were down.

Eric, my mentor, and Frank, the welder, really showed an interest in me. They pushed me. When I graduated, they gave me a set of my own tools. I use them everyday in my tool and die work, to make money, to pay my rent, to pay for my car, everything."

Jason was pursuing an associate degree in airplane mechanics and intended to complete his bachelor degree in mechanical engineering at the Michigan Institute of Aeronautics.

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Defining the Challenge

In 1990, science centers and museums were in a much different place in their knowledge, skills, and practices in addressing the needs of adolescents, especially those from underserved communities. Around that time, there was a clarion call to respond to reports such as *The Forgotten Half,*[1] *Turning Points,*[2] and *Education That Works.*[3] Each of these reports documented an inescapable fact—without developmentally appropriate intervention, the talent and potential of too many young people was being lost.

Addressing this challenge was not simple. Historically, museums have been perceived as elitist institutions—available and valuable only to certain segments of our society. Despite the fact that many of these institutions are in urban areas, too many young people from urban communities rarely, if ever, thought of museums and science centers as places meant for them.

A survey of ASTC-member museums at that time revealed that some science centers clearly recognized the importance of programs for adolescents. However, neither youth development nor reaching underserved teenagers seemed to have been major considerations in program design and delivery. ASTC recognized that engaging and supporting adolescents, particularly those from underserved communities, would be the core challenge for the field.

As ASTC, representatives from its members, and the Funds looked for solutions to this challenge, it became evident that there was no infrastructure or funding to support the field in exploring the issues and developing viable, sustainable solutions. The *Youth*ALIVE! initiative was developed in response to this discovery.

1. The William T. Grant Foundation Commission on Work, Family and Citizenship, Final Report, November 1988.

2. Carnegie Council on Adolescent Development, June 1989.

3. Quality Education for Minorities Project, January 1990.

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An Infrastructure That Nurtures

The New Jersey State Aquarium's *Teen Experience and Mentoring* program provides an environment where underserved youth from the Camden City area develop academic, leadership, and life skills. Nurtured by education department staff, participants who master basic concepts related to marine biology can apply for positions as *Junior Staff*. While working as exhibit explainers, summer camp counselors, or ecology club teachers, the young people also participate in workshops and field trips that help them prepare for college and pursue careers in science.

Tawanda became a Junior Staff member in 1996.

"Working with the public taught me a big lesson—which was, no matter what they say, keep smiling."

TAW

march/99

"Three years ago, I saw pamphlets posted all over Camden High School advertising for 'Junior Staff' at the New Jersey State Aquarium. I entered the Aquarium not knowing what to expect of this job. For 10 weeks, we received training. To remain in the program, we had to maintain a 70 grade average or better. I had difficulty maintaining a C average and so I asked for help. I came every single day after school for extra help. The extra help was evident in my tests. By the end of the training period, I had one of the highest averages in the group.

Initially, I was a bad girl who did not know how to take constructive criticism. Instead of taking it in to my advantage, I would retaliate with another criticizing remark. That has all changed. As Junior Staff, we worked on the floor as exhibit interpreters. Working with the public taught me a big lesson—which was, no matter what they say, keep smiling. The program gave me somewhere to go so that I would not have to deal with the stress at home. My little job was my only sense of security. No matter what, I went to work. On days I did not have to work, I went to work anyway.

I've lost so many friends on the streets due to violence. The Junior Staff program helps you agree to disagree, which is very important at our age as teenagers. In the street, when people disagree, the

ANDA

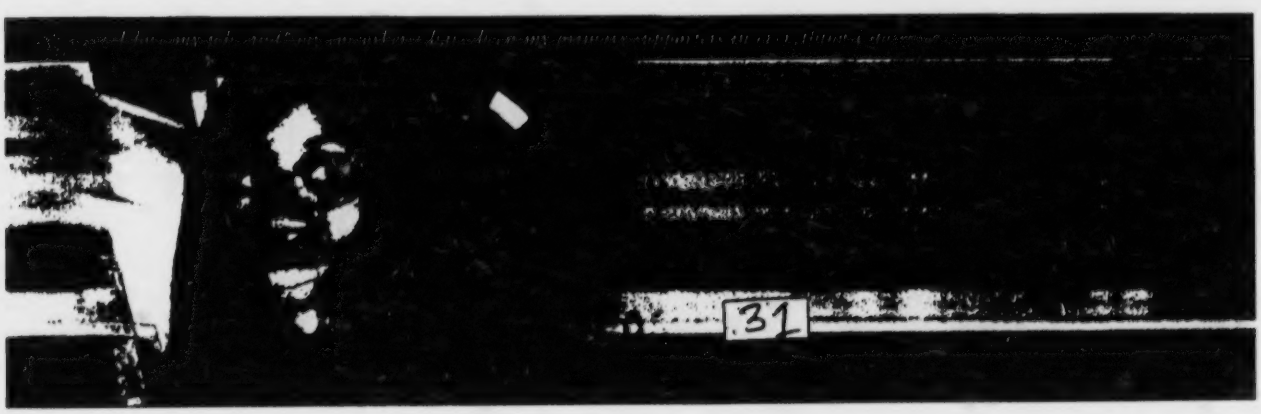
in her own words

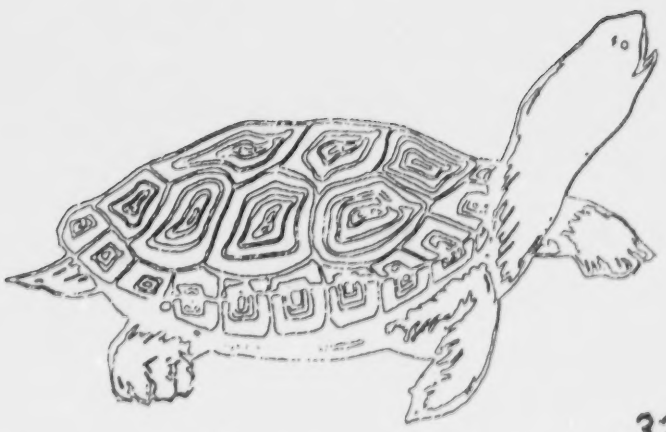
outcome is most likely to be violence. Not at the Aquarium—if two people are talking and they disagree, they just disagree and leave it at that.

I love my job, and [my coworkers] have been my primary supporters in everything I do. Networking is something that I do now without even thinking. I was chosen to attend the *Youth*ALIVE! Youth Summit in New York City and I am still communicating with five of the people I met there.

In 1997, I worked as a cashier in the gift shop. Recently, I was given an assistant coordinator position for our 'Deep Sleep' camp-in program. By the time I get out of college, I will be able to land a good job without having to deal with the traditional adjustment stage."

Tawanda had completed one year at Burlington County College and was serving as a senior counselor for the Intensive Marine Biology Camp at the New Jersey State Aquarium.



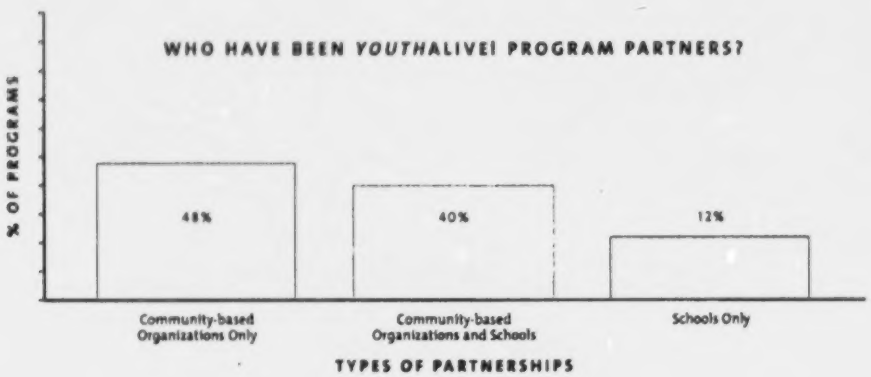


Shifting the Paradigm

"The national and regional network meetings are invaluable. Working with youth can be draining, especially when your entire heart and soul are put on the line for each teen every day. Network meetings put our staff in touch with people doing the same work for the same reasons. Just when we thought it was too much, a staff person from another Youth*ALIVE! site or from ASTC would be on the phone offering words of encouragement and sympathetic ears. Our program is a success, in part, due to colleagues who shared their training and outreach ideas, success stories, and strategies."*

Janice Siska-Hjelmgren, The Imaginarium of Racine
Former *Youth*ALIVE! Project Director,
Chicago Academy of Sciences

In 1991, ASTC and the Funds entered a partnership that enabled ASTC to administer a series of grants programs. The overarching goal of these programs was to build the capacity of science centers and museums to create developmentally appropriate, museum-based programs for and with adolescents, particularly those from underserved communities. In the course of developing comprehensive grant guidelines and program expectations, ASTC and its members engaged in numerous conversations about the *Youth*ALIVE! vision, the nature of youth programming in science centers and museums, and the role of community partners in fulfilling this vision. (Please see Appendix C, page 68, for a list of the 219 partners.)



It quickly became clear that museum staff members needed professional development opportunities to help them balance the needs of young people with the need of the museum to fulfill its mission. Youth-program staff members from grantee institutions were organized into a professional development network called the *Youth*ALIVE! Network that met twice a year. Network members embraced the meetings as a support system for their own personal and professional development, and as a forum for exploring issues surrounding their work with young people in science centers and museums. ASTC worked closely with the Network members to ensure that the meetings would be both dynamic and creative in responding to the members' growing skills. The Network, now operating as five regional networks, became a key part of the infrastructure of the *Youth*ALIVE! initiative.

*Youth*ALIVE! timeline

1990

Youth development specialists and museum professionals worked together to develop a vision and key elements for developmentally appropriate, museum-based youth programs.

1991

Wallace-Reader's Digest Funds provided funding to ASTC to administer the visionary initiative, *Youth*ALIVE! The guidelines asked science centers and museums to develop recruitment strategies that included underserved youth, particularly girls and minorities.

1996–97

ASTC implemented Leadership Team Institutes to bring executive directors, development officers, marketing directors, and *Youth*ALIVE! project directors together to build alliances on behalf of their institutions' youth programs.

1996

ASTC secured funding from the Hitachi Foundation to support the development of a work-skills component for *Youth*ALIVE! programs.

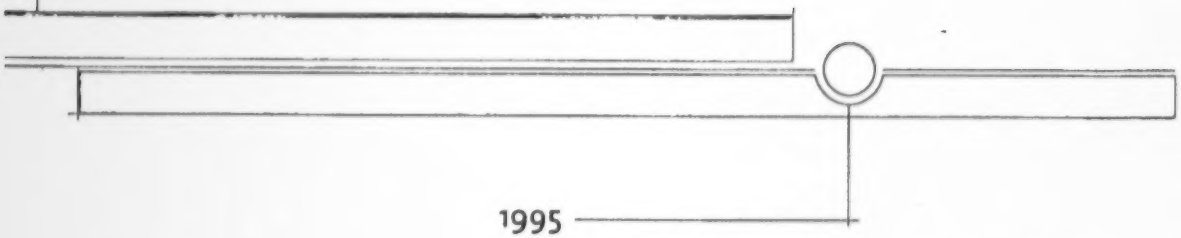
1993–98

ASTC developed a model for youth-leadership institutes that focused intensively on specific topics: 1993—environmental science; 1994—communication and conflict resolution; 1997—workplace skills training; and 1998—microbiology.

36

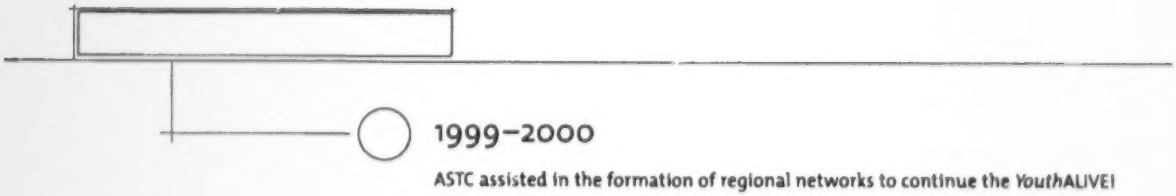
1991–95

Eighty-five institutions received funding in two categories: program support and planning grants. ASTC convened biannual, professional development Network meetings for grantees.



1995

- Inverness Research Associates evaluated the first three years of the program and identified a set of Principles of Basic Practice (see Appendix A, page 65).
- ASTC secured additional funding from the Funds to expand the number of new programs and to support the incorporation of existing programs into the daily operations of the science centers. New guidelines required science centers to develop strategies to recruit young people from low-income communities.



1999–2000

ASTC assisted in the formation of regional networks to continue the *Youth*ALIVE! mission, and organized regional network leaders into a national Youth Program Advisory Committee.

- Over 200 local community partnerships were documented (see Appendix C).
- In 1999 alone, over 2,000 young people participated in *Youth*ALIVE! programs.
- 56% were female; 71% were from low-income communities; 46% were African American; 22% were Caucasian; 19% were Hispanic; 8% were Asian American; and the remaining 5% were other racial/ethnic groups, including Native American.

Explaining Science

Explainers at the New York Hall of Science assist, encourage, and inspire visitors to enjoy their encounters with science. As they explain the scientific principles and invite visitors to interact with the exhibits, *Explainers* enhance their understanding of science and build their communication and teaching skills. As the high school students perfect their communication skills, the science center reaps the benefits of a multilingual and multicultural floor staff. The Hall of Science's Career Ladder helps teens make concrete plans to pursue careers in science.

Chai became an Explainer in Spring 1998.

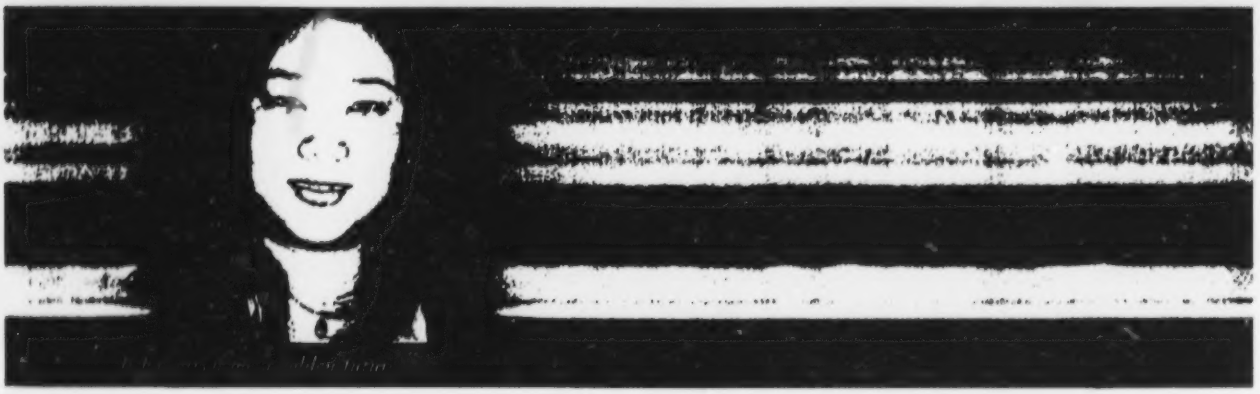
"I am now a successful science student, as well as an immigrant student whose English skills have improved a lot."

february/99

"I have been in the United States for almost two years. The program at the New York Hall of Science has changed my life. I have gained precious knowledge in science. It has given me a golden future.

As an immigrant student in Manhattan International High School, my English was really bad. I didn't understand a word that came out of my teachers' mouths. I was confused in everything. I asked if I could do anything after school or on weekends so I could have more opportunities to improve my English. When I started at the New York Hall of Science, I was like, "Me no English." I had the feeling that people around me were making fun of me because I spoke so little English. It was so funny—I tried to communicate but nobody understood my accent. I told myself that I received a valuable chance in my life and I shouldn't disappoint those who have faith in me. With a notebook in hand, I went through all the exhibits and asked for help whenever I needed it.

I was very nervous during my first demonstration dissecting a cow's eye. I had never presented in front of a group of people. Day after day, the staff kept encouraging me to learn more demonstrations and now I feel comfortable doing them. The Explainers also helped me correct my English when it was wrong. I really appreciated that.



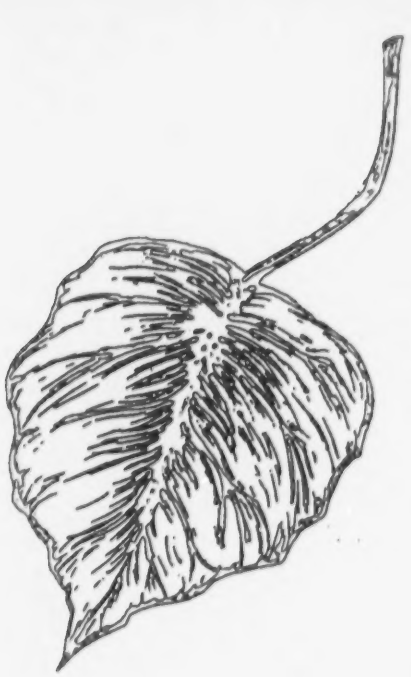
CHAI

in her own words

When I went back to school, all my teachers said that my English skills had improved a lot. I was very comfortable presenting in front of my classmates. I have been selected to be the class representative of student council.

Working in this science museum has taught me a lot of science that I wouldn't have gotten from school. It has changed my outlook of my future towards a career in science. I am now a successful science student, as well as an immigrant student whose English skills have improved a lot. ”

Chai graduated from high school and has been promoted to Program Explainer. She provides weekly Explainer training at the New York Hall of Science.



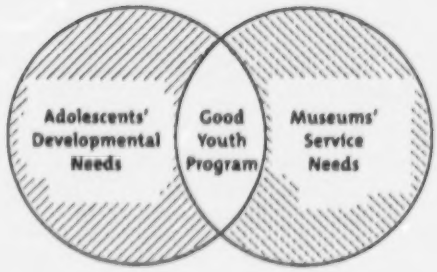
Building the Foundation

*Youth*ALIVE! is not a single program model. *Youth*ALIVE! is a framework for museums and science centers to use as they develop youth programs that create opportunities for and with young people to learn valuable career and life skills. The Principles of Basic Practice (see Appendix A, page 65) guide the development and enhancement of the programs. Using this foundation, each *Youth*ALIVE! program is then uniquely structured to meet the needs and draw on the resources of its institution and community.

Despite differences among the programs and types of institutions, there is a common underpinning—each attends to the developmental needs of every young participant (see diagram below).

ADOLESCENTS NEED

- Physical activity
- Competence and achievement
- Self-definition
- Creative expression
- Supportive relationships
- Meaningful participation
- Information
- Age-appropriate autonomy
- Structure and clear limits
- Opportunities to explore new behaviors and attitudes

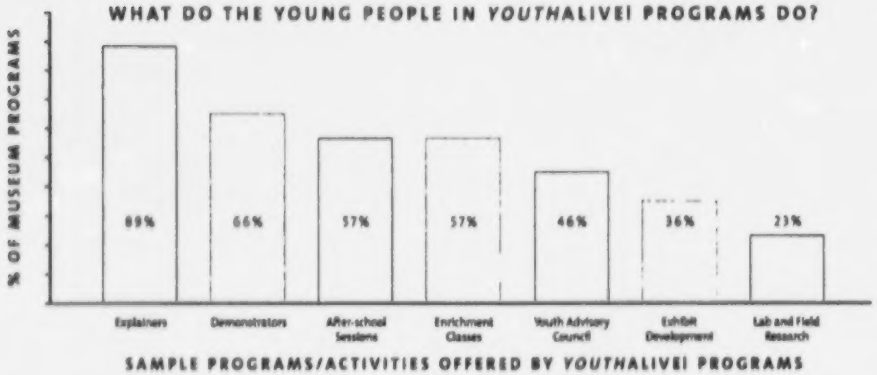


MUSEUMS NEED

- Diversity
- Explainers/interpreters
- Exhibit caretakers
- Guides/Hosts
- Teaching assistants
- Special events staff
- Floor managers
- Peer mentors
- Ambassadors
- New audiences

"The kids stay because the environment is so stimulating and creative. They get endless support and love. They get options. They are exposed to a range of experiences."

Angela Wenger, Director of Education
New Jersey State Aquarium



As a result of this commonality, the programs converge into two broad types depending on the age of the participants: hands-on educational enrichment and work-based learning. Typically, younger teenagers (ages 10–13) begin their involvement with a *Youth*ALIVE! program through enrichment camps or clubs. Academic-enrichment science activities build their science literacy. They learn vital cross-cultural communication skills and come to regard the science center as a good place to spend their out-of-school time. Older teens (ages 14–17) continue their involvement through paid or volunteer positions as exhibit explainers, demonstrators, or in a number of other roles. They receive pre-employment training based on the SCANS competencies,[1] get counseling and assistance in pursuing college and careers, and work closely with mentors. The programs grow and change as their young participants grow and change.

1. The SCANS competencies are a set of job-readiness skills defined by a national commission of private sector representatives. The report of the Secretary's Commission on Achieving the Necessary Skills (SCANS) was released by the United States Department of Labor in 1990.

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Creating a New Vision

YouthWorks at the Lied Discovery Children's Museum in Las Vegas, Nevada, helps adolescents discover their own competencies and interests in art, science, and the humanities; obtain job and communication skills; and gain long-term involvement in the museum's programs and operations. They can progress through three levels: *ShortSmocks*, a volunteer and enrichment program; *Teen Leaders*, a work-based learning program for older youth; and *Teen Interns*, an advanced level for those ready to take on more in-depth training and responsibility. The program offers young people paid and volunteer positions as guides and explainers.

Johnny was in the *Youth*ALIVE! Program from 1994 to 1998.

february/99

"I worked at the Lied Discovery Children's Museum for about five years. I learned a lot, went to a lot of places, and earned a lot of awards. If it wasn't for the people at the museum, I don't think I would be where I am today, attending school to be a surgical technician.

I started at the museum when I was about 11 and worked my way up to be a teen intern. I was going through some problems in school. I was in special education ever since I was in first grade. I used to get teased because I could not read well. That turned into

JOH

behavior problems. A lady, Marie, with the *Youth*ALIVE! program really helped me out. Another lady we called the "Gang Lady" came to the museum to talk to us and tell us stories about gang members. I would go home and think, 'Do I want to end up like those people?' I told myself that I could straighten up or be another statistic.

"If it wasn't for the people at the museum, I don't think I would be where I am today."

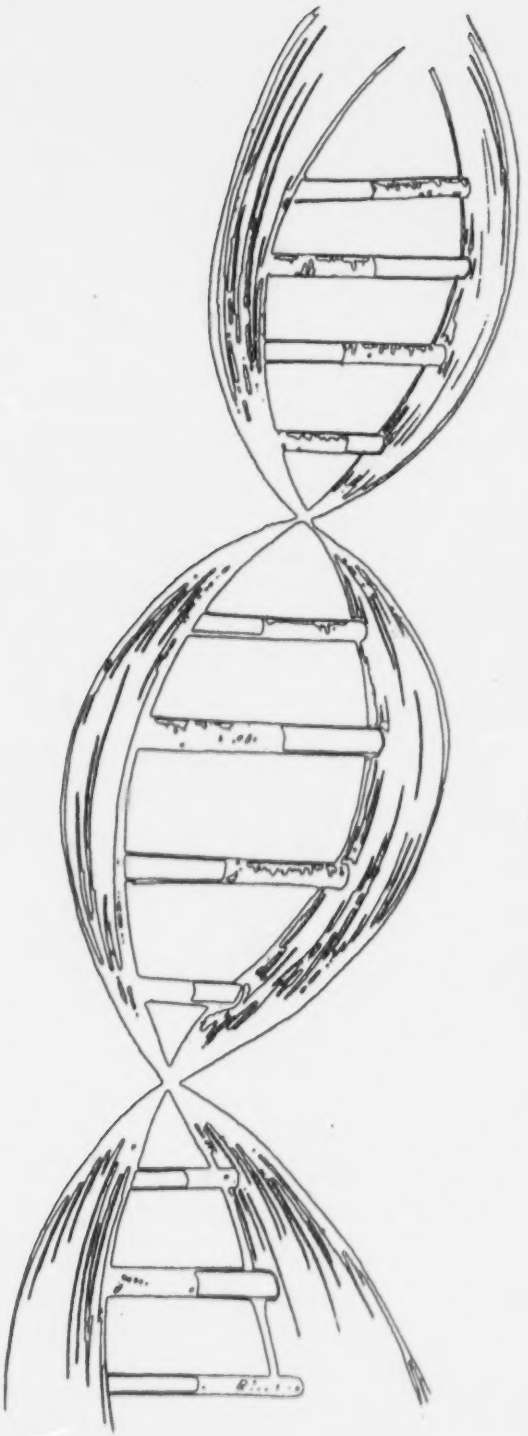
At the museum, there was one exhibit that I didn't like much. Stuffy was a huge, soft, human-like doll stuffed with body parts. We would open him up and do a demonstration of all his body parts. Learning all those body parts helps in school now.

Thank you for letting me tell my story. I always wanted to tell someone about the good the museum has done for me and others like me. I want to say thanks to the *Youth*ALIVE! program for helping me stay out of trouble and do better in school."

Johnny was attending the Nevada Career Institute on scholarship while working as an operating room aide at Valley Hospital in Las Vegas. He aspires to a career in surgical nursing.

NNY

in his own words



Looking Back: Lessons Learned

This 10-year pilot project provided tremendous insight on the issues of youth development programs in science centers and museums. Future directions for the field can be shaped by four major lessons learned about capacity building, access to educational and career opportunities, professional development for science center and museum staff, and community partnerships.

CAPACITY BUILDING

FUNDING GUIDELINES CAN SHAPE INSTITUTIONAL PRACTICES THAT LEAD TO CHANGES IN ATTITUDES AND BELIEFS.

During the grant-making phase of the initiative, grant guidelines were driven by the Funds' vision, ASTC's knowledge of its members' capacities, and formative evaluation findings. Over time, and with technical assistance, science centers and museums responded with program proposals that stretched beyond their traditional modes of youth programming. These proposals reflected a willingness to address some of the developmental needs of young people. Furthermore, their proposals reflected an array of strategies to build an infrastructure supportive of their efforts at this new type of programming. Strategies included long-term partnerships with community-based organizations, liaisons with low-income communities, identification of new potential funders, a commitment to professional development, and involvement of museum leadership as allies.

WITH SUFFICIENT TIME, TECHNICAL ASSISTANCE, AND FUNDING, SCIENCE CENTERS AND MUSEUMS CAN CREATE ENVIRONMENTS THAT HELP YOUNG PEOPLE REALIZE THEIR POTENTIAL.

Initially, programs began as a point of entry into science centers for young people, particularly those from low-income and minority communities. Within three years, most programs developed more sophisticated work experiences, such as apprenticeships or internships in various departments throughout the science center. This was true even for those programs that were funded as hands-on educational enrichment for middle-school youth. This process of "growing a program" proved to be a stretching exercise for science-center staff

who transcended cultural and age differences as they discovered each young person's assets. Preconceived notions surrounding "those kids" were replaced by pride in the accomplishments and contributions of "our kids." At the same time, young people's preconceived notions of science centers and museums as places that were not for them were replaced by a sense of ownership and belonging. ASTC members are taking long-term, youth programming to a new level.

CREATING AND MAINTAINING AN ENVIRONMENT FOR A SUCCESSFUL YOUTH PROGRAM REQUIRES ONGOING AND INSTITUTION-WIDE ATTENTION TO DIVERSITY ISSUES.

Science centers and museums have a genuine interest in promoting diversity; however, they are often stymied as to how to address this complex issue. A *Youth*ALIVE! program often provides the staff with an opportunity to engage in dialogues on issues related to age, race, ethnicity, and class. Through *Youth*ALIVE! Network meetings, youth program staff members became more explicitly aware of the discrete activities required to build a more inclusive environment. This awareness, along with knowledge, skills, and practices, helped them become advocates for diversity within their institutions. The national Network meetings on diversity were both descriptive and prescriptive. The meetings provided model experiences that could be replicated back at the museums and also provided theories to help guide those efforts.

ACCESS TO EDUCATIONAL AND CAREER OPPORTUNITIES

SCIENCE CENTERS AND MUSEUMS HAVE AN EXCEPTIONAL ABILITY FOR STRUCTURING A "LADDER" APPROACH TO YOUTH PROGRAMMING THAT NURTURES AND SUPPORTS ALL YOUNG PEOPLE.

Programs encourage the long-term involvement of young people by using a "ladder" approach that provides adolescents with a range of activities to keep them engaged as they mature. Each rung of the ladder is developmentally appropriate and broadens the young person's horizons. The first steps involve younger adolescents in after-school and summer

enrichment programs, where they have fun while exploring nature, conducting kitchen chemistry, working on technology projects, or engaging in other intellectually stimulating activities. As their abilities and needs for new challenges grow, they move up to programs that focus on service learning and on building the skills required for volunteer and paid positions.

Youth program staff members connect the steps of the ladder by providing the teens with access to a caring adult and to a set of activities that reinforces previous experiences, prepares teens for new ones, and encourages reflection and goal setting. This commitment to addressing young peoples' long-range developmental needs requires a small adult-youth ratio to ensure that the quality of the opportunities will benefit the teen and the science center.

Offering opportunities is only one aspect of working with young people who do not have access to the resources that are readily available to adolescents from more affluent communities. As science centers and museums have become increasingly aware of these resource disparities, they have worked harder to meet the challenges and overcome the potential barriers facing these young people. Institutions have worked closely with their community partners and young people to develop creative solutions that address a gamut of issues—including safe and reliable transportation, computer access, paid employment, and preparation for college. *Youth*ALIVE! program staff members know firsthand that some of these issues serve as critical filters in determining who can participate in museum programs and, ultimately, who will enter adulthood with options.

*YOUTH*ALIVE! PROGRAMS HAVE DEVELOPED AN EXCITING NEW APPRENTICESHIP MODEL.

A good apprenticeship program includes job training, skills application, and supportive mentors. These elements are found in many *Youth*ALIVE! programs. Museums have a variety of service and technical occupations that use a range of skills and knowledge—giving young people access to a variety of different work experiences and showing them how to

use many different skills. Mentors are drawn from exhibits, education, development, marketing, operations, and other departments. Through apprenticeships, adolescents can develop competency in managing time, space, and materials; interpersonal skills; critically selecting and articulating information; using technology; and understanding the science center as a system.[1]

The *Youth*ALIVE!-type apprenticeship often begins as a service-learning experience in which teens develop skill in

> adjusting the activities to fit the tastes and needs of people who are often very different from the learner—different in age, cultural background, and viewpoints about daily living. [Furthermore, these programs] offer the opportunity for reflection on the meaning of these activities in the lives of both the server and the served.[2]

The process of developing and adjusting presentations and engagement strategies helps teens develop exceptional poise and communication skills. This planned "growthway" of "learn, practice, and earn" is fueled by encouragement and feedback from peers, mentors, museum staff, and visitors.

"The human element in this program makes the difference—it adds grea strength to the skills aspect. The youth receive structured, caring guidance as it pertains to their development as an individual, as a student, and a human being."

Angela Wenger, Director of Education
New Jersey State Aquarium

1. The five competencies recommended by the Secretary's Commission on Achieving the Necessary Skills (SCANS), U.S. Department of Labor.

2. Joan Schine, Ed. *Service Learning: Ninety-Sixth Yearbook of the National Society for the Study of Education, Part 1.* Chicago: University of Chicago Press, 1997, pp. iv-v.

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PROFESSIONAL DEVELOPMENT FOR SCIENCE CENTER AND MUSEUM STAFF

ADDRESSING STAFF MEMBERS' NEED FOR NEW KNOWLEDGE AND NEW SKILLS IN WORKING WITH UNDERSERVED ADOLESCENTS WAS—AND STILL IS—A CRITICAL COMPONENT OF EVERY SUCCESSFUL PROGRAM.

Early on, youth-program staff members coalesced into a community of learners through the *Youth*ALIVE! Network. During the national *Youth*ALIVE! Network meetings, new staff members received orientation and support, while experienced staff explored problem-solving and new program ideas. Program staff realized that, as their programs matured and gained stature, new opportunities and challenges constantly developed. As more staff worked with and mentored teens, the variety of museum professionals requiring support and insight into working with adolescents grew. The need to develop experiences and opportunities to support staff new to working with adolescents compelled *Youth*ALIVE! Network members to continue the work of the national initiative by forming five regional networks.

"Having the national network helps in [internal] advocacy. We need that because we're working with a different culture. We have students who are misunderstood. We're inviting a community into an already somewhat-formed community: the museum community. We're dealing with a culture that's misunderstood."

Darlene Librero, Director, Explainer Program
Exploratorium, San Francisco

COMMUNITY PARTNERSHIPS

"Any museum, any cultural institution, should be working with the community because that's their future. In the community there are so many wonderful resources. And I'm not talking about money—I'm talking about people, agencies, experience, traditions, and culture that can connect to any institution. Without the community, you don't have a museum."

Maria Cabrera, Community Liaison
Museum of Science, Boston

COMMUNITY PARTNERSHIPS ARE CRITICAL.

Some of the strongest partnerships were those in which the needs of the *Youth*ALIVE! program and the needs of the partnership organizations were both addressed. Science centers and museums are in a unique position to work with community-based organizations to enhance the latter's programs and activities. Community organizations often have difficulty in retaining the interest of older adolescents because they cannot provide them with meaningful work. By partnering with the museum, teens have meaningful work and, in some cases, they bring a new set of skills, such as teaching science to the younger participants back in the community organization. These collaborations and the ensuing new roles for older youth make a lasting impact on young participants and the community.

Broadening Horizons

The *Science Scene* program at the Chicago Academy of Sciences is designed to enhance science literacy for underserved youth. *Teens Exploring Nature and Science* is a two-year, work-based program in which high school sophomores and juniors build their skills through jobs in the museum. The young people earn a salary while receiving job training. In addition to developing puppet shows and interactive games that help them interpret exhibits to younger children, the teens also focus on career awareness and planning for their futures.

Hector's two-year involvement in *Science Scene* began in 1992. His relationship with his museum mentor has been ongoing.

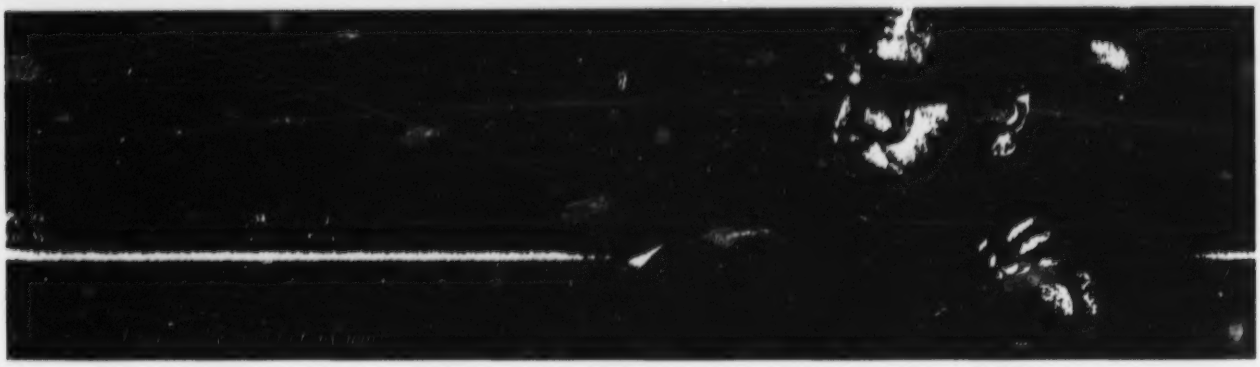
"I began to realize what I wanted to do in life—teach juveniles in high school or work with them in a juvenile setting."

HEC

march/99

"I started out traveling on the wrong road. In fact, my life was a living nightmare. The gangs—my only family—taught me all the prerequisites to survive the streets. I believed what many teachers and adults told me: I would never succeed. I hated school.

I was adopted around 13–14 years old and was a given a second chance to live. I found myself traveling on a new road. On this road, I came across many gas stations that gave me the fuel and tune-ups to continue on this wonderful road. One of these wonderful gas stations was the Chicago Academy of Sciences. It was there that I was given the opportunity to meet new people from different backgrounds, learn how to relate to my peers and staff, and explore and experience new things. I came to have a better understanding about responsibility and teamwork. I was able to connect our exhibits to our visitors by using analogy and metaphors. I was really proud of my work.



TOR

in his own words

I began to realize what I wanted to do in life—teach juveniles in high school or work with them in a juvenile setting. But the most important thing that I was able to take with me and apply in college was the ability to think critically—to use my brain to be creative, original, and to handle big responsibility.

At the University of Illinois, I work two jobs for a total of 51 hours a week. I also carry nine class credit hours. It has been a long road with many bumps along the way. But I will accomplish a goal many thought I would never reach. ”

After graduating from the University of Illinois at Chicago in 1999 with majors in criminal justice and history, Hector became a crisis coordinator for the Youth Service Project in Chicago. Currently, he is a Cook County Juvenile Probation Officer and trains youth counselors at his church.

Looking Forward: Next Steps

In 1991, when the *Youth*ALIVE! initiative was just starting to take shape, America was looking ahead to the new century. Since then, widespread and daily use of computers has fueled the growth of the Internet and other new technologies as new economic frontiers. Life in America—already complex and fast-moving—now is moving even faster. While progress and innovation affect citizens of all ages, they have a particularly powerful effect on our nation's young people.

As a pilot program, the *Youth*ALIVE! initiative has had a significant impact on the participating institutions and youth. However, there is still a tremendous amount of untapped potential. The momentum created by *Youth*ALIVE! has generated an environment in which science centers and museums are poised to do much more.

The following observations and suggestions were gleaned from an ASTC Annual Conference session—"Prospects Emerging from *Youth*ALIVE!"—convened in Tampa, Florida, in October 1999. Panelists were

- Mark St. John, Principal, Inverness Research, Inverness, California
- James Peterson, President, Science Museum of Minnesota, St. Paul, Minnesota
- Teresa Gonzalez-White, Grants Manager, Lowry Park Zoo, Tampa, Florida
- Darlene Librero, Director, Explainer Program, Exploratorium, San Francisco, California
- Diane Frankel, Program Director for Children, Youth, and Families, James Irvine Foundation, and former Director, Institute of Museum-Library Services, San Francisco, California
- Robert West, Principal, Informal Learning Incorporated, Washington, D.C.
- Eric Kirkland, COSMOS Corporation, Washington, D.C.

ENHANCE YOUNG PEOPLE'S PREPARATION FOR SCIENCE, TECHNOLOGY, AND EDUCATION CAREERS.

*Youth*ALIVE! programs are well positioned to be extensions of the educational process. Current education research corroborates the value of hands-on, experiential learning activities. The interactive, hands-on learning in science centers is contextual learning at its best. Science centers and museums make educational experiences and activities accessible and appealing to all learners. Many of the young participants have discovered the joy of teaching. Science centers can capitalize on this interest by providing them with support and opportunities to become teachers. We also know that these informal educational environments can engage underserved youth in science activities. We can now devote more attention to developing strategies to prepare them for careers in science fields.

EXPAND AND INTENSIFY EFFORTS TO MAKE SCIENCE CENTERS AND MUSEUMS FULLY INCLUSIVE.

*Youth*ALIVE! brought the issue of inclusion to the forefront of concerns facing the science center field. The progress made so far needs to be bolstered in several ways. We need to build on *Youth*ALIVE!'s successful strategies for professional development. We also need to forge plans to continue the progress that the *Youth*ALIVE! initiative has made towards a more inclusive field. One component of such a plan would be to devise a set of benchmarks that might target growth in the following areas:

- Recruitment of board and staff members who represent the diversity of the community in terms of race, ethnicity, socioeconomic background, and physical ability.
- Regular attendance by underrepresented staff members at professional and leadership development opportunities.
- Support for ongoing dialogues on diversity among individuals throughout the field.
- Development and implementation of strategies for recruiting and retaining *Youth*ALIVE! alumni as full-time staff.

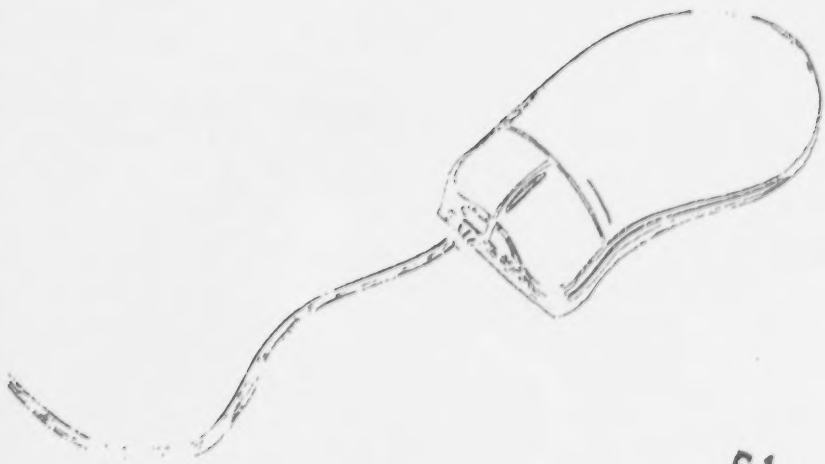
SECURE ADEQUATE AND SUSTAINED FUNDING FOR YOUTH PROGRAMMING IN MUSEUMS.

Science centers and museums have the greatest impact on youth when their programs, such as *Youth*ALIVE!, receive adequate funding. The yield on investment in these types of programs is profound and far-reaching. Outreach delivered by teens benefits individuals and organizations in the science center field and in the community. These programs provide job training and jobs for low-income youth. To ensure appropriate funding levels for these types of programs, organizations must reach out to a variety of funding sources, including private and public foundations, corporations, and individuals. Moreover, science centers and museums need access to more local, state, and federal funding.

SUPPORT RESEARCH TO CONFIRM THE POTENTIAL OF SCIENCE CENTERS AND MUSEUMS AS SAFE, ENRICHING PLACES FOR ALL YOUNG PEOPLE DURING NON-SCHOOL HOURS, AND REFINE THE APPRENTICESHIP FRAMEWORK.

ASTC's files abound with anecdotal evidence of the impact of *Youth*ALIVE!—much of which has been used to guide its work with members in refining youth programs. One such example is the working model for apprenticeships that develop young people's social, intellectual, and workplace competence.

Anecdotal evidence, however, must also be supplemented with the objective analysis of well-designed research. ASTC welcomes partners who will help develop and implement a strong research component for the interim and long-term outcomes of this work. ASTC, science centers, and the people participating in *Youth*ALIVE! programs have much to contribute to the national dialogues on youth development and science education.



Appendices

Appendix A

PRINCIPLES OF BASIC PRACTICE

- Both the needs of the institution and the needs of youth are met through the program.
- The museum is committed to integrating participants into the fabric of the entire institution.
- The programs operate year-round and participants have at least 120 contact hours (hours of participation at the institution) per year.*
- The rules and expectations for the participants in the program are appropriately flexible.
- Participants work in small groups with staff members and mentors who challenge the young people intellectually.
- The institution nurtures a positive peer culture, as participants from diverse backgrounds work together on common tasks.
- Participants are given responsibilities commensurate with their developmental needs.
- Participants engage in tasks that are of interest to them and enhance their perceptions of their own capabilities and futures.
- Participants are provided stimulating opportunities to make connections between their museum experiences, career possibilities, and educational paths.
- Program staff members recognize the importance of family support and seek to involve the families of targeted youth.*

* Principles added after 1995.

Appendix B

Participating Science Centers and Museums Supported by the *Youth*Alive! Initiative

PROGRAM GRANTS[1]

Academy of Natural Sciences, Philadelphia, PA
Audubon Institute, New Orleans, LA
Austin Children's Museum, Austin, TX
Bay Area Discovery Museum, Sausalito, CA
Brooklyn Children's Museum, NY
Buffalo Museum of Science, NY
California Academy of Sciences, San Francisco
California Science Center, Los Angeles
Carnegie Science Center, Pittsburgh, PA
Catawba Science Center, Hickory, NC
Chabot Observatory & Science Center, Oakland, CA
Chicago Academy of Sciences, IL
Chicago Botanic Garden, Glencoe, IL
Chicago Children's Museum, IL
Children's Discovery Museum, San Jose, CA
Children's Museum at Holyoke, MA
Children's Museum of Denver, CO
Children's Museum of Indianapolis, IN
Children's Museum of Maine, Portland
Children's Museum of Manhattan, NY
Children's Museum, Boston, MA
Cincinnati Museum of Natural History, OH
Computer Museum, Boston, MA
Cranbrook Institute of Science, Bloomfield Hills, MI
Discovery Place, Inc., Charlotte, NC
EcoTarium, Worcester, MA
Exploratorium, San Francisco, CA
Exploreum Museum of Discovery, Mobile, AL
Franklin Institute of Science, Philadelphia, PA
Great Explorations, St. Petersburg, FL
Gulf Coast World of Science, Sarasota, FL
Henry Ford Museum & Greenfield Village, Dearborn, MI
Hudson River Museum, Yonkers, NY
Imaginarium of Racine, WI
Imagination Place Children's Museum, Gadsden, AL*
Jersey Explorer Children's Museum, East Orange, NJ
Junior Museum, Troy, NY*
Lake Champlain Basin Science Center, Burlington, VT
Lawrence Hall of Science, Berkeley, CA*
Lied Discovery Children's Museum, Las Vegas, NV
Louisiana Arts and Science Center, Baton Rouge, LA
Lowry Park Zoo, Tampa, FL
Miami Museum of Science, FL
Museum of Discovery and Science, Fort Lauderdale, FL
Museum of Science, Boston, MA
Museum of Science and Industry, Tampa, FL
Museum of the Rockies, Bozeman, MT
National Aquarium, Baltimore, MD
New England Aquarium, Boston, MA
New Jersey State Aquarium, Camden
New York Hall of Science, Corona Park (Queens)
New York State Museum, Albany
Newark Museum, NJ*
North Carolina Museum of Life & Science, Durham
Oregon Museum of Science and Industry, Portland
Orlando Science Center, FL
Pittsburgh Children's Museum, PA
Please Touch Museum, Philadelphia, PA
Roberson Museum and Science Center, Binghamton, NY
Roger Williams Park Zoo, Providence, RI
Santa Barbara Museum of Natural History, CA
Science Center of Eastern Connecticut, New London
Science Museum of Minnesota, St. Paul
Science Place, Dallas, TX
Sciencenter, Ithaca, NY
SciTech, Aurora, IL
SciTrek, The Science and Technology Museum of Atlanta, GA
St. Louis Science Center, MO*
Tech Museum of Innovation, San Jose, CA*
Upper Peninsula Children's Museum, Marquette, MI
Utah Museum of Natural History, Salt Lake City
Zoological Society of Philadelphia, PA

* Also received Planning Grants

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PLANNING GRANTS[1]

Ann Arbor Hands-On Museum, MI
Arizona Science Center, Phoenix
Bootheel Youth Museum, Malden, MO
Carter House Natural Science Museum, Redding, CA
Children's Museum of Houston, TX
Children's Museum of Utah, Salt Lake City
Cleveland Children's Museum, OH
Collage Children's Museum, Denver, CO
Dallas Museum of Natural History, TX
Detroit Science Center, MI
Discovery 2000, Birmingham, AL
Discovery Center Museum, Rockford, IL
Exploritl Science Center, Davis, CA
Fort Worth Museum of Science and Industry, TX
High Desert Museum, Bend, OR
Hudson Valley Children's Museum, Upper Nyack, NY
Invention Factory Science Center, Trenton, NJ
JFK Library and Museum, Boston, MA
Kohl Children's Museum, Wilmette, IL
Liberty Science Center, Jersey City, NJ
Louisville Science Center, KY
Madison Children's Museum, WI
Magic House, St. Louis, MO
Maryland Science Center, Baltimore
Memphis Children's Museum, TN
Minnesota Children's Museum, St. Paul
Museum of Arts & Sciences, Macon, GA
New Mexico Museum of Natural History, Albuquerque
Sacramento Science Center, CA
Santa Fe Children's Museum, NM
Science Museum, Shoreham, NY
Science Station, Cedar Rapids, IA
Sunrise Museum, Charleston, WV
Wichita Falls Museum and Art Center, TX

YOUTHALIVE! GRANT AWARD SITES

1. These multiyear grants supported development, implementation and/or expansion of developmentally appropriate, museum-based youth programs.

2. These smaller grants supported the research and design process for science centers with less experience in developing and implementing long- term, developmentally appropriate, inclusive youth programs.

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Appendix C

Community Partners Who Worked with *Youth*ALIVE! Science Centers and Museums 1995–1999

ALABAMA

Gadsden Housing Authority

Girl Scouts of the Deep South, Mobile

Northeast Alabama Boys & Girls Clubs

Reach Out

CALIFORNIA

4H, San Francisco

ACCESS, Oakland

Avalon Gardens, Los Angeles

Bay Area Science Teachers, Sausalito

Berkeley Biotech Academy

Berkeley High School

Boys & Girls Clubs, Berkeley

City of Berkeley Youth Works

City of Los Angeles Summer Youth Employment

City of San Jose

Community Network for Youth Development, San Jose

El Puente Community School, Santa Barbara

EQUALS, Oakland

Faith Presbyterian Church, Oakland

Florence Crittenden Services, San Francisco

Fred Finch Group Home, Berkeley

Girl Scouts, San Jose

Headstart, San Jose

I Have a Dream Foundation, Los Angeles

La Cheim Schools Inc., Berkeley

Manual Arts High School, Los Angeles

Marin City Project, Sausalito

Marin Employment and Training, Sausalito

MESA, San Jose State University

Mexican-American Community Services Agency, San Jose

Oakland Boys & Girls Clubs

Oakland Zoo

Performing Stars of Marin, Sausalito

Sacred Heart Community Services, San Jose

San Francisco Department of Recreation & Parks

San Francisco Unified School District

Santa Barbara Housing Authority

Schools to Careers, Oakland

Spanish Speaking Unity Council, Oakland

Teenage Parenting & Pregnancy Program, San Francisco

University of California, Berkeley Pledge

Urban Youth Apprentices, San Francisco

Whitney Young Child Development Center, San Francisco

Youth Radio, San Jose

CONNECTICUT

B.P. Learned Mission, New London

Centro de la Comunidad, New London

Connecticut College

Dr. MLK Community Center

Drop-in Learning Center , New London

Edgerton Elementary School, New London

LEAP, New London

New London High School

Pfizer Inc., New London

Torre Saint Miguel

Trinity Missionary Baptist Church, New London

FLORIDA

13th Ave. & Tallevast Community Centers

A Woman's Place, Tampa

Adams Middle School Youth Connection, Tampa

ASPIRA, Miami

Big Brothers, Big Sisters, Miami

Boys & Girls Club, Tampa Bay

Boy Scouts of America Explorers, Orlando

Broward County School Board, Ft. Lauderdale

Church Without Walls, Miami

Council of Community Service

Dade County Public Schools, Miami

ESTEEM Program, Orlando

Hillsborough County Employment & Training Department, Tampa

Hillsborough County School District, Tampa

Hollywood Boys & Girls Club, Ft. Lauderdale

Junior Achievement, Orlando

Juvenile Welfare Board, Pinellas County, St. Petersburg

Manasota Industry Council

McKnight Center of Excellence, Orlando

Metro-Miami Action Plan Trust

Nan Knox Boys & Girls Club, Ft. Lauderdale

North Lauderdale Boys & Girls Club, Ft. Lauderdale

Partners Reaching Families for Life-Long Learning, St. Petersburg

Rubonia Myakka City

Tampa Marine Institute

TeenRELIEF

University of South Florida

Urban League

Walker Middle School, Orlando

YMCA, Sarasota

ILLINOIS

Argonne National Laboratory, Aurora

ASPIRA, Chicago

Chicago High School for Agricultural Sciences

Chicago Housing Authority

Chicago State University

City of Chicago's Hire the Future

DuSable High School, Chicago

Amundsen High School, Chicago

Elliott Donnelley Youth Center, Chicago

Garfield Park Conservatory, Chicago

Henry Horner Boys & Girls Club, Chicago

Northwestern University, Chicago

Science Linkages in the Community, Chicago

Sherwood Lakes Housing Development, Chicago

Woodlawn Organization, Chicago

YMCA, Chicago

LOUISIANA

100 Black Men of Baton Rouge

Boys & Girls Club, New Orleans

JTPA, Baton Rouge

LaCapitale Chapter of Links Inc. of Baton Rouge

National Organization of Black Chemists & Chemical Engineers, Baton Rouge

School to Work, Baton Rouge

MAINE

Boys & Girls Club, Greater Portland

MARYLAND

Enoch Pratt Library, Baltimore

Science is for Everyone, Baltimore

MASSACHUSETTS

Castle Square Tenants Organization, Boston

City on the Hill High School, Boston

Fenway Middle College High School, Boston

Greater Brook Valley Health Center, Worcester

Greater Eggleston Community High School, Boston

Public Service Electricity & Gas

Quincy-Geneva Housing Development Corporation, Boston

Worcester Housing Authority

MICHIGAN

Newman AME Church, Bloomfield Hills

Pontiac Central High School, Bloomfield Hills

Washington Junior High School, Bloomfield Hills

Wayne-Westland School District, Dearborn

MINNESOTA

Dayton Bluff Community Garden, St. Paul

Expo School, St. Paul

Frogtown Neighborhood Leap Forward, St. Paul

Landfall Community Center, St. Paul

Minnesota Arts & Education Partnership, St. Paul

Project Spirit, St. Paul

Old Arizona Collaborative, St. Paul

Trusting Neighbors, St. Paul

MISSOURI

Annie Malone Children & Family Service Center, St. Louis

Girls Inc., St. Louis

St. Louis Agency on Training and Employment, St. Louis

YWCA, St. Louis

MONTANA

Bozeman Public Schools

Human Resource Development Council, Bozeman

NEVADA

J.D. Smith Middle School, Las Vegas

Nevada Business Services, Las Vegas

Rancho High School, Las Vegas

Smith College, Las Vegas

NEW JERSEY

Camden High School

Clifford Scott High School

EPIC Center, East Orange

Essex Council Boy Scouts, Newark

Greyston Foundation, East Orange

NJ Youth Corps, East Orange

Orange Alternative High School, East Orange

Pennsauken High School, Camden

Science High School, Newark

Woodrow Wilson High School, East Orange

NEW YORK

The ARK, Troy

Beczak Environmental Education Center

Binghamton City Schools

Binghamton Housing Authority

Boys & Girls Club, Binghamton

Boys & Girls Club, Troy

Brooklyn Public Library

Carnegie Library, Albany

Central Park East Secondary School, Manhattan

Children's Home Wyoming Conference, Binghamton

Community Conflict Mediation, Brooklyn

Cornell Cooperative Extension, Ithaca

Dome Project

Expedition Brooklyn

Goddard/Riverside OPTIONS, Brooklyn

Ithaca Housing Authority

Ithaca Youth Bureau

Kaplan, Manhattan

The Museum School, Yonkers

Nathan Cumming Foundation, Brooklyn

Ossining Community Action Program, Yonkers

Perry High School, Albany

Project SPIRIT, Brooklyn

Public School 289, Brooklyn

Refugee Assistance Program, Binghamton

Robert Brown Staff Development, Brooklyn

RPI Summer Pre-College Institute, Troy

Seneca Center, Bronx

St. John's Community Center, Brooklyn

Stuyvesant High School, New York City

Tickets for Kids, Albany

UHS Hospital, Binghamton

Urban 4-H Program, Ithaca

Urban League of Broome County, Binghamton

Youth Development Coalition, Binghamton

Youth Empowerment Services, Albany

NORTH CAROLINA

City of Hickory Housing Authority

City of Hickory Police Dept.

Durham Public Schools

Edgemont Community Center

Hickory City Schools

Hickory Community Relations

Lenoir Rhyne College, Hickory

OHIO

Citizen's Committee on Youth, Cincinnati

Earn & Learn, Cincinnati

PENNSYLVANIA

Allegheny Middle School, Pittsburgh

College Summit

Communities in Schools, Pittsburgh

Ellis Foundation, Philadelphia

Fairmont Park, Philadelphia

Hawk Mountain Sanctuary, Philadelphia

Keystone Science School, Philadelphia

Lincoln High School, Philadelphia

Maine Science Consortium, Philadelphia

Martin Luther King Elementary School, Pittsburgh

Oliver High School, Pittsburgh

Philadelphia School District

Pocono Environmental Education Center, Dingmans Ferry

Urban Youth Action, Pittsburgh

YMCA Black Achievers, Philadelphia

RHODE ISLAND

Community Centers Schools, Providence

Environmental Protection Agency

World Wildlife Fund

UTAH

Glendale Middle School & Elementary Schools, Salt Lake City

VERMONT

King Street Youth Center, Burlington

Shelburne Farms, Burlington

Vermont Dept. of Employment & Training

Very Special Arts

WISCONSIN

Family Services, Racine

Opportunities Industrialization Center, Racine

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You can find additional stories from *Youth*ALIVE! teens in the Resource Center at www.astc.org.

To learn more about ASTC and to locate a science center near you, go to www.astc.org, and click on "Find a Science Center."

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